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RAW SEQUENCE LISTING
PATENT APPLICATION: US/10/019,823A

DATE: 10/24/2002
TIME: 15:36:28

Input Set : A:\SYN-128.ST25.txt
Output Set: N:\CRF4\10242002\J019823A.raw

3 <110> APPLICANT: Zeneca Limited
 5 <120> TITLE OF INVENTION: Insecticidal Proteins from Paecilomyces and Synergistic
 6 Combinations Thereof
 8 <130> FILE REFERENCE: SYN-128
 10 <140> CURRENT APPLICATION NUMBER: US 10/019,823A
 C--> 11 <141> CURRENT FILING DATE: 2002-08-21
 13 <150> PRIOR APPLICATION NUMBER: PCT/GB00/02457
 14 <151> PRIOR FILING DATE: 2000-06-23
 16 <150> PRIOR APPLICATION NUMBER: GB 9915215.9
 17 <151> PRIOR FILING DATE: 1999-06-29
 19 <150> PRIOR APPLICATION NUMBER: GB 9930536.9
 20 <151> PRIOR FILING DATE: 1999-12-23
 22 <160> NUMBER OF SEQ ID NOS: 65
 24 <170> SOFTWARE: FastSEQ for Windows Version 4.0
 26 <210> SEQ ID NO: 1
 27 <211> LENGTH: 33
 28 <212> TYPE: PRT
 29 <213> ORGANISM: Paecilomyces sp.
 31 <220> FEATURE:
 32 <221> NAME/KEY: VARIANT
 33 <222> LOCATION: 1, 2
 34 <223> OTHER INFORMATION: Xaa = Any Amino Acid
 36 <400> SEQUENCE: 1
 W--> 37 Xaa Xaa Ile Cys Thr Pro Ala Gly Val Lys Cys Pro Ala Ala Leu Pro
 38 1 5 10 15
 39 Cys Cys Pro Gly Leu Arg Cys Ile Gly Gly Val Asn Asn Lys Val Cys
 40 20 25 30
 41 Arg
 45 <210> SEQ ID NO: 2
 46 <211> LENGTH: 33
 47 <212> TYPE: PRT
 48 <213> ORGANISM: Paecilomyces sp.
 50 <400> SEQUENCE: 2
 51 Gly Lys Ile Cys Thr Pro Ala Gly Val Lys Cys Pro Ala Ala Leu Pro
 52 1 5 10 15
 53 Cys Cys Pro Gly Leu Arg Cys Ile Gly Gly Val Asn Asn Lys Val Cys
 54 20 25 30
 55 Arg
 59 <210> SEQ ID NO: 3
 60 <211> LENGTH: 35
 61 <212> TYPE: PRT
 62 <213> ORGANISM: Paecilomyces sp.
 64 <220> FEATURE:

ENTERED

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65 <221> NAME/KEY: VARIANT
66 <222> LOCATION: 1, 2
67 <223> OTHER INFORMATION: Xaa = Any Amino Acid
69 <400> SEQUENCE: 3
W--> 70 Xaa Xaa Gly Lys Ile Cys Thr Pro Ala Gly Val Lys Cys Pro Ala Ala
71 1 5 10 15
72 Leu Pro Cys Cys Pro Gly Leu Arg Cys Ile Gly Gly Val Asn Asn Lys
73 20 25 30
74 Val Cys Arg
75 35
78 <210> SEQ ID NO: 4
79 <211> LENGTH: 332
80 <212> TYPE: DNA
81 <213> ORGANISM: Paecilomyces sp.
83 <400> SEQUENCE: 4
84 ggcaagatct gcactcctgc tggagttgt a cgtatttca tccatttcct ycaccactcc 60
85 tctaacaatga agcaactttc tcttctctct agaaatgtcc cgccgctt cttgtgtgcc 120
86 ccggacttcg ctgcacatcgcc ggcgtcaacg taagtacca tggatctggc aagcgagacc 180
87 ataacatgac gcagtatact aaccctggcc gttatagaac aagggtgtga gtgcacatgt 240
88 tktacaacct ctacaaacgc gcgcactaat gacaacggta gtgcggtaa ttcttagtgtc 300
89 gcaactttt agcgtgggat aagtatgtt cg 332
91 <210> SEQ ID NO: 5
92 <211> LENGTH: 320
93 <212> TYPE: DNA
94 <213> ORGANISM: Paecilomyces sp.
96 <400> SEQUENCE: 5
97 gggaaaattt gtacgccccgc ggggggttgc tggatctca tccatttcct ccaccactcc 60
98 tctaacaatga agcaacttc tcttctctct agaaatgtcc cgccgctt cttgtgtgcc 120
99 ccggacttcg ctgcacatcgcc ggcgtcaacg taagtacca tcctgacacg acgtgaaggc 180
100 aatgtactga ccctggccgt tatagaacaa ggttgtgagt cgacatgttt tacaacctct 240
101 acaaacgcgc gcactaatga caacggtagt gccggtaatt ctatgttcgc aacttttgag 300
102 cgtggataa gtatgttcg 320
104 <210> SEQ ID NO: 6
105 <211> LENGTH: 320
106 <212> TYPE: DNA
107 <213> ORGANISM: Paecilomyces sp.
109 <400> SEQUENCE: 6
110 gggaaaatct gtacgccccgc ggggggttgc tggatctca tccatttcct ccaccactcc 60
111 tctaacaatga agcaacttc tcttctctct araaatgtcc cgccgctt cttgtgtgcc 120
112 ccggacttcg ctgcacatcgcc ggcgtcaacg taagtacca tcctgacacg acgtgaaggc 180
113 aatgtactga ccctggccgt tatagaacaa ggttgtgagt cgacatgttt tacaacctct 240
114 acaaacgcgc gcactaatga caacggtagt gccggtaatt ctatgttcgc aacttttgag 300
115 cgtggataa gtatgttcg 320
117 <210> SEQ ID NO: 7
118 <211> LENGTH: 174
119 <212> TYPE: DNA
120 <213> ORGANISM: Artificial Sequence
122 <220> FEATURE:
123 <223> OTHER INFORMATION: Synthetic polynucleotide codon optimised

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125 <400> SEQUENCE: 7
126 atgggtggca gccgcaggc tgctctgtg ctggccctgg tggccgtgag cctggccgtg 60
127 gagatccagg cccgcaggat ctgcaccccg gccggcgtga agtgcccggc cgccctcccg 120
128 tgctgcccgg gcctccgctg catcggcggc gtgaacaaca aggtgtgccc ctga 174
130 <210> SEQ ID NO: 8
131 <211> LENGTH: 174
132 <212> TYPE: DNA
133 <213> ORGANISM: Artificial Sequence
135 <220> FEATURE:
136 <223> OTHER INFORMATION: Synthetic polynucleotide codon optimised
138 <400> SEQUENCE: 8
139 atgggtggca gccgcaggc tgctctgtg ctggccctgg tggccgtgag cctggccgtg 60
140 gagatccagg cccgtaaaat ttgtaccccg gccggcgtga agtgcccggc cgccctcccg 120
141 tgggtccgg gcctcagggtg tattgggtt gtgaataata aagtgtgtcg ctga 174
143 <210> SEQ ID NO: 9
144 <211> LENGTH: 363
145 <212> TYPE: DNA
146 <213> ORGANISM: Artificial Sequence
148 <220> FEATURE:
149 <223> OTHER INFORMATION: Synthetic sequence containing intron sequence
151 <400> SEQUENCE: 9
152 atgggtggca gccgcaggc tgctctgtg ctggccctgg tggccgtgag cctggccgtg 60
153 gagatccagg cccgcaggat ctgcactcc gctggagttt ttgtttctg ctttaccc 120
154 tgatataatat ataataatta tcattaaat ttgtatataat aatatttcaa atatttttt 180
155 caaaaataaaa gaatgttagta tatagcaatt gctttctgt agtttataag tttgtatatt 240
156 ttaatttata actttctaa tatatgacca aaacatggtg atgtttagaa atgtcccg 300
157 gctttcctt gtcggccgg acttcgctgc atcggcggcg tcaacaacaa ggttgcgg 360
158 taa 363
160 <210> SEQ ID NO: 10
161 <211> LENGTH: 369
162 <212> TYPE: DNA
163 <213> ORGANISM: Artificial Sequence
165 <220> FEATURE:
166 <223> OTHER INFORMATION: Synthetic sequence
168 <400> SEQUENCE: 10
169 atgggtggca gccgcaggc tgctctgtg ctggccctgg tggccgtgag cctggccgtg 60
170 gagatccagg cccgcaggat caagatctgc actcctgtg gagttttt tttctgttc 120
171 tactttcat atatataata taattatcat taatttagtag taatataata tttcaaatat 180
172 tttttcaaa ataaaagaat gtatataata gcaattgtt ttctgtatgt tataagtgt 240
173 tatattttaa ttataactt ttctataata tgaccaaaac atgggtatgt ttagaaatgt 300
174 cccgcggctc ttcttgctg cccggactt cgctgcatcg gccggcgtcaa caacaagg 360
175 tgccgtaa 369
177 <210> SEQ ID NO: 11
178 <211> LENGTH: 363
179 <212> TYPE: DNA
180 <213> ORGANISM: Artificial Sequence
182 <220> FEATURE:
183 <223> OTHER INFORMATION: Synthetic sequence
185 <400> SEQUENCE: 11

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186 atgggtggca gcggcaggc tgctctgctg ctggccctgg tggccgtgag cctggccgtg 60
 187 gagatccagg cccctacat ctgcactcct gctggagttt tttgtttctg cttctacatt 120
 188 tggatataatataataatata tcattaatta gtagtaatataat aatatttcaa atattttttt 180
 189 caaaataaaaaa gaatgttagta tatagcaatt gctttctgt agtttataag tggatatt 240
 190 ttaatttata acttttctaa tatatgacca aaacatggtg atgatggaa atgtcccg 300
 191 gctttccctt gtcggccgg acttcgctgc atcggcggcg tcaacaacaa ggttgcgg 360
 192 taa 363
 194 <210> SEQ ID NO: 12
 195 <211> LENGTH: 363
 196 <212> TYPE: DNA
 197 <213> ORGANISM: Artificial Sequence
 199 <220> FEATURE:
 200 <223> OTHER INFORMATION: Synthetic sequence containing intron and codon
 201 optimised
 203 <400> SEQUENCE: 12
 204 atgggtggca gcggcaggc tgctctgctg ctggccctgg tggccgtgag cctggccgtg 60
 205 gagatccagg cccgcaggat ctgcaccccg gcccgggtgg tttgtttctg cttctacatt 120
 206 tggatataatataataatata tcattaatta gtagtaatataat aatatttcaa atattttttt 180
 207 caaaataaaaaa gaatgttagta tatagcaatt gctttctgt agtttataag tggatatt 240
 208 ttaatttata acttttctaa tatatgacca aaacatggtg atgatggaa gtcggccgg 300
 209 gcccctccgt gtcggccggg cctccgctgc atcggcggcg tgaacaacaa ggttgcgg 360
 210 tga 363
 212 <210> SEQ ID NO: 13
 213 <211> LENGTH: 439
 214 <212> TYPE: DNA
 215 <213> ORGANISM: Paecilomyces sp.
 217 <400> SEQUENCE: 13
 218 tctacttctt catctcacgc catatatcct cccaaaatca cacctcttcc ttcaccatgc 60
 219 aaatctccgc cgtcattgtc gcactcttcg ccagcgcgcg catggccggc aagatctgca 120
 220 ctcctgtgg agttgtacgt atttcatcc atttctctyca ccactctct aacatgaagc 180
 221 aacttcttcttcttcttata aatgtccgcg ggcttcttctt tggatggccgg gacttcgctg 240
 222 catggccggc gtcacacgtaa gtcaccatgg atctggcaag cgagaccata acatgacgca 300
 223 gtataactaac ctcggccgtt atagaacaag gttgtgagtc gacatgtkt acaacactata 360
 224 caaacgcgcg cactaatgac aacggtagtg ccggtaatttca tagtgcgca acttttgagc 420
 225 gtgggataag tatgtttcg 439
 227 <210> SEQ ID NO: 14
 228 <211> LENGTH: 102
 229 <212> TYPE: DNA
 230 <213> ORGANISM: Paecilomyces sp.
 232 <400> SEQUENCE: 14
 233 ggcaagatct gcactcttcg tggagttaaa tggatggccgg ctcttccttgc tggccgg 60
 234 cttcgctgca tcggccggcgt caacaacaag gtttgcggaa 102
 236 <210> SEQ ID NO: 15
 237 <211> LENGTH: 84
 238 <212> TYPE: DNA
 239 <213> ORGANISM: Dahlia sp.
 241 <400> SEQUENCE: 15
 242 atggatata gatctgttcg tttttctgt tttgttctta ttcttttgt tttggctatt 60
 243 tcagatatttgc cttctgttttc agga 84

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Input Set : A:\SYN-128.ST25.txt
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245 <210> SEQ ID NO: 16
246 <211> LENGTH: 87
247 <212> TYPE: DNA
248 <213> ORGANISM: Artificial Sequence
250 <220> FEATURE:
251 <223> OTHER INFORMATION: Radish signal sequence
253 <400> SEQUENCE: 16
254 atggctaaat ttgcttctat tattgctctt ttgtttgctg cacttgggg gtttgctgca 60
255 tttgaagctc caactatggt tgaagct 87
257 <210> SEQ ID NO: 17
258 <211> LENGTH: 72
259 <212> TYPE: DNA
260 <213> ORGANISM: Zea mays
262 <400> SEQUENCE: 17
263 atgggtggca gggggcggggc tgctctgctg ctggccctgg tggccgtgag cctggccgtg 60
264 gagatccagg cc 72
266 <210> SEQ ID NO: 18
267 <211> LENGTH: 90
268 <212> TYPE: DNA
269 <213> ORGANISM: Nicotiana sp.
271 <400> SEQUENCE: 18
272 atgggatgg ttctcttttc acaattgcct tcatttcttc ttgtctctac acttcttta 60
273 ttccttagtaa tatcccaactc ttgccgtgcc 90
275 <210> SEQ ID NO: 19
276 <211> LENGTH: 51
277 <212> TYPE: DNA
278 <213> ORGANISM: Paecilomyces sp.
280 <400> SEQUENCE: 19
281 atgcaaaatct ccggccgtcat tgtcgcactc ttccggcagcg ccggccatggc c 51
283 <210> SEQ ID NO: 20
284 <211> LENGTH: 28
285 <212> TYPE: PRT
286 <213> ORGANISM: Dahlia sp.
288 <400> SEQUENCE: 20
289 Met Val Asn Arg Ser Val Ala Phe Ser Ala Phe Val Leu Ile Leu Phe
290 1 5 10 15
291 Val Leu Ala Ile Ser Asp Ile Ala Ser Val Ser Gly
292 20 25
295 <210> SEQ ID NO: 21
296 <211> LENGTH: 29
297 <212> TYPE: PRT
298 <213> ORGANISM: Artificial Sequence
300 <220> FEATURE:
301 <223> OTHER INFORMATION: Radish protein target sequence
303 <400> SEQUENCE: 21
304 Met Ala Lys Phe Ala Ser Ile Ile Ala Leu Leu Phe Ala Ala Leu Val
305 1 5 10 15
306 Leu Phe Ala Ala Phe Glu Ala Pro Thr Met Val Glu Ala
307 20 25

RAW SEQUENCE LISTING ERROR SUMMARY DATE: 10/24/2002
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Please Note:

Use of n and/or Xaa have been detected in the Sequence Listing. Please review the Sequence Listing to ensure that a corresponding explanation is presented in the <220> to <223> fields of each sequence which presents at least one n or Xaa.

Seq#:1; Xaa Pos. 1,2
Seq#:3; Xaa Pos. 1,2
Seq#:30; N Pos. 9,12,15
Seq#:31; N Pos. 9,12,15,18
Seq#:32; N Pos. 3,6,9,12,15
Seq#:33; N Pos. 3,12,15
Seq#:34; N Pos. 2,14
Seq#:35; N Pos. 3,6,18
Seq#:36; N Pos. 12,15,18,21,24
Seq#:37; N Pos. 3,6,9,12,21,24
Seq#:38; N Pos. 6,9,12,15,18
Seq#:39; N Pos. 9,12,15
Seq#:43; N Pos. 23,24,25,26,27
Seq#:48; N Pos. 3,15,18,21
Seq#:54; Xaa Pos. 602
Seq#:60; Xaa Pos. 1,2,3,5,6,7,8,9,10,12,13,14,15,16,19,20,21,22,24,25,26,27
Seq#:60; Xaa Pos. 28,29,30,31,33
Seq#:65; Xaa Pos. 1,2

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L:11 M:271 C: Current Filing Date differs, Replaced Current Filing Date
L:37 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:1 after pos.:0
L:70 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:3 after pos.:0
L:409 M:281 W: Numeric Fields not Ordered, <221> Sort in ascending order!
L:413 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:30
L:414 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:30 after pos.:0
L:424 M:281 W: Numeric Fields not Ordered, <221> Sort in ascending order!
L:428 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:31
L:429 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:31 after pos.:0
L:439 M:281 W: Numeric Fields not Ordered, <221> Sort in ascending order!
L:443 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:32
L:444 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:32 after pos.:0
L:454 M:281 W: Numeric Fields not Ordered, <221> Sort in ascending order!
L:458 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:33
L:459 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:33 after pos.:0
L:469 M:281 W: Numeric Fields not Ordered, <221> Sort in ascending order!
L:473 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:34
L:474 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:34 after pos.:0
L:484 M:281 W: Numeric Fields not Ordered, <221> Sort in ascending order!
L:488 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:35
L:489 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:35 after pos.:0
L:499 M:281 W: Numeric Fields not Ordered, <221> Sort in ascending order!
L:503 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:36
L:504 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:36 after pos.:0
L:514 M:281 W: Numeric Fields not Ordered, <221> Sort in ascending order!
L:518 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:37
L:519 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:37 after pos.:0
L:529 M:281 W: Numeric Fields not Ordered, <221> Sort in ascending order!
L:533 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:38
L:534 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:38 after pos.:0
L:544 M:281 W: Numeric Fields not Ordered, <221> Sort in ascending order!
L:548 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:39
L:549 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:39 after pos.:0
L:592 M:281 W: Numeric Fields not Ordered, <221> Sort in ascending order!
L:596 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:43
L:597 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:43 after pos.:0
L:651 M:281 W: Numeric Fields not Ordered, <221> Sort in ascending order!
L:655 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:48
L:656 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:48 after pos.:0
L:721 M:281 W: Numeric Fields not Ordered, <221> Sort in ascending order!
L:725 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:54
L:800 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:54 after pos.:592
L:1331 M:281 W: Numeric Fields not Ordered, <221> Sort in ascending order!
L:1336 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:60
L:1337 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:60 after pos.:0
L:1339 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:60 after pos.:16
L:1341 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:60 after pos.:32
L:1409 M:281 W: Numeric Fields not Ordered, <221> Sort in ascending order!

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L:1413 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:65

L:1414 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:65 after pos.:0